

## Specifications

|                            |                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------|
| Input Impedance:           | >1M ohms                                                                                      |
| Compression Ratio:         | 1:1 - 15:1                                                                                    |
| Side chain Filter Control: | Second order low-pass or high-pass, cutoff adjustable<br>cut off frequency with Shape control |
| Output Impedance:          | 1K ohms                                                                                       |
| Size:                      | 4 5/8" x 3 5/8" x 1 3/8"                                                                      |

True Bypass Switching

High Dynamic Range for 18v headroom from 9v battery or adaptor

9v DC Adaptor (standard center negative) at 250 milliamps or greater

Dual Color on/off and Low Battery indicator LED on right side

Die cast aluminum box, rubber texture professional knobs, powder coated texture and laser etched logos and labels

All specifications subject to change without notice.

**WARNING:** High settings on some or all controls may result in pain to your ears, pets, friends, amp and speakers. Start low to check your levels.



**Warning – Please read the following:**  
Important Safety Instructions



1. Do not use this apparatus near water and do not submerge.
2. Clean only with dry cloth.
3. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
4. Disconnect input jack to conserve battery life.
5. Only use 9v DC power adaptor 250 milliamps or larger.
6. Misuse of pedal, including deconstruction, modifications or use of improper power adaptors voids the warranty.

## About Daring Audio

Daring Audio's mission is to be the most innovative product design company for electric bassists and music professionals. We combine the latest electronic components available, circuit design leadership, high quality manufacturing techniques and aesthetic design. Other products include: Laser Cannon, Particle Beam and the Edge Activator.

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# PHAT BEAM

Unique Bass Dynamics Processor with Shape Filter Control



The PHAT BEAM is an advanced dynamics processor and tone shaping device with simple controls. It gives your tone a feel, depth and sustain that is clean yet powerful. The key to its magic is the interaction between the compressor and a powerful filter that can be applied in a variety of ways. This pedal covers the transparent and easy-to-use compressor needs and then moves beyond that by allowing dual slope dynamics with an independent limiter and compressor, an adaptive RMS detector and an optional state variable filter. This enables unique clean, phat, funky tones.

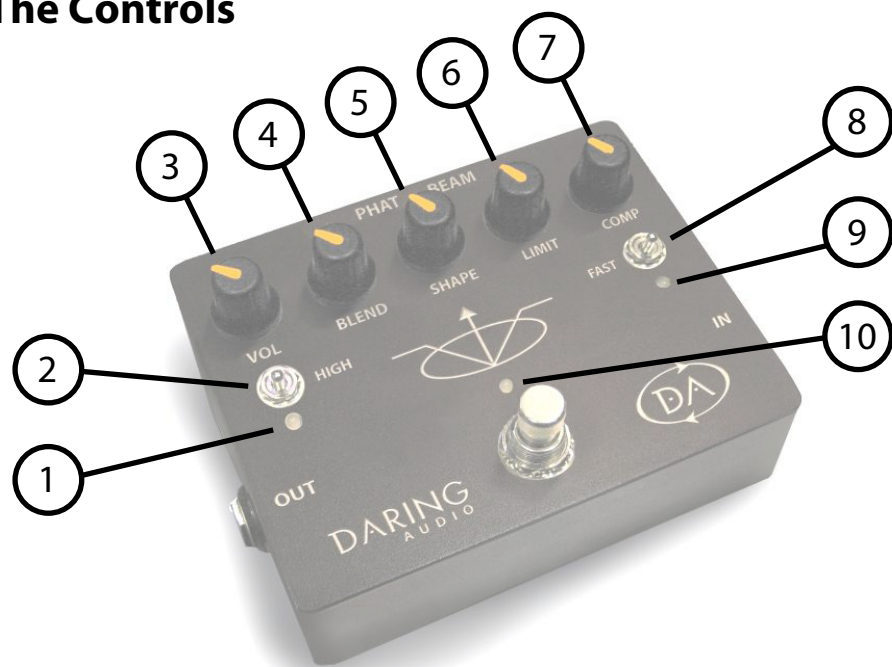
## Ultimate Frequency Selective Compression and Limiting

The PHAT BEAM was inspired by sophisticated studio engineering techniques used to get that "radio" or "studio" bass sound. The shape filter control can be used in two ways to filter the incoming audio signal to the compressor or the side chain input to the compressor. A unique adaptive signal detector tailored especially for bass guitar signals means there are no complicated attack and release knobs to adjust. This is a real classical analog VCA based compressor with lots of added flexibility. It evens out the volume of each string while players are using aggressive techniques common in Funk, Rock, and Hip Hop, but also can give you radical new sounds, tones and feels. Unlike other compressors, the PHAT BEAM can be set to reduce annoying fret and string noise from some instruments and strings by reducing the compression on high frequencies.

The dynamics processor in the PHAT BEAM offers dual slope compression and limiting, with independent controls for the limiter threshold and the compression ratio. A single knob allows compression control from 1:1 to 15:1 while a separate knob allows setting the independent limiter threshold. The PHAT BEAM also features a unique adaptive signal detector tailored especially for bass guitar signals, which automatically adjusts the attack, release and time constants. The blend control allows you to mix your clean, unprocessed signal alongside the effected signal.

The filter section can be set to either low-pass or high-pass modes and the shape knob controls the range of frequencies that get filtered in each mode. It can be set to affect your overall audio signal for dramatic tonal effects, or it can be set to affect only the dynamic response, leaving your tone unfiltered. The shape filter can also be “turned off” (so no filtering is done at all) by either switching the HIGH toggle up and turning the SHAPE knob fully counter-clockwise, or switching the HIGH toggle down and turning the SHAPE knob fully clockwise. In those two ways your entire signal passes through unfiltered, and it only gets processed by the compression and/or limiting. Take some time to explore settings from subtle to radical and realize that your instrument, strings and playing technique will be a major ingredient to the sound that comes out.

## The Controls



- 1 LED indicates filter mode for the SHAPE knob. LED is Green in low-pass mode and Yellow in high-pass mode.
- 2 **HIGH** - Selects the filter mode. Selects high-pass filter mode when up, low-pass filter mode when down.
- 3 **VOL** - The output level of the blended signal.
- 4 **BLEND** - Sets the mixture from 100% clean (dry, unprocessed signal) to 100% wet signal.
- 5 **SHAPE** - Sets the cutoff frequency of the state variable filter.

- 6 **LIMIT** - Sets the independent limiter threshold. Turning the knob fully clockwise disengages the limiter altogether. Turning it counter-clockwise causes the limiter to engage at lower input signal levels.
- 7 **COMP** - Sets the amount of compression from 1:1 (no compression) when fully counter-clockwise to 15:1 when fully clockwise.
- 8 **VCA** - Selects the location in the circuit for the state variable filter. Inserts state variable filter in the main audio signal path when up and in the side chain when down. Up is the more radical tone shaping position.
- 9 LED indicates VCA mode and low battery detection. LED is Yellow when filter is in VCA path, LED of indicates the side chain position, LED is Red when battery is low.
- 10 LED above shows Green when unit is on, but flashes Yellow as compression or limiting is dynamically applied to the signal for visual feedback.

**Internal Trim Pot** - Inside the PHAT BEAM on the circuit board is a trim pot that sets the VCA (voltage controlled amplifier) gain. This can be set to apply up to 20 dB of gain to the input signal when the unit is switched on. This adds sustain to the signal as it is turned up from minimum (counter-clockwise) to maximum (clockwise). A small Phillips head screwdriver is used to adjust this. The minimum gain setting is often the best for bass guitar and has the lowest noise.

## User Presets

